user guide

GE MapSight™

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620-02810 V3.4 (Jan 2014)

Introduction

MapSight is a location-based measuring device that will greatly increase your productivity when undertaking pole surveys and related measurements.

Your MapSight package you can quickly:

- Collect geo-located pole photos
- Measure wire span heights, even across busy roads
- Determine wires clearances from vegetation or buildings
- Make accurate attachment height measurements on captured photos

This document will guide you through:

- Setting up your MapSight system
- Making in-field measurements tasks
- Transferring data from the MapSight unit to your PC
- Measuring attachment heights from a pole photo
- Outputting data in industry standard file formats

What's in the Box

- MapSight device
- MapSight Tools, including Tree Assessment and Local Point
- MapSight View for Pole Measuring
- TrueSize Poles photo capture
- Essential and Field Accessories
- Low Magnetic Signature Tripod
- 1-year Hardware Warranty, Software Maintenance & Support

WARNING!	**Text set off in this manner indicates that failure to follow directions could result in user injury or unexpected data results.**
IMPORTANT:	Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.
Note:	*Text set off in this manner indicates information that may be useful to the operation of your MapSight unit*.

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MapSight – System Overview Diagram

System Setup

- Download and install Software from the MapSight website

Configure MapSight

- Create custom Forms in MapSight View
- Deploy onto the MapSight unit

Sample forms are found in the MapSight View 'Sample Forms' folder. Simply deploy these to your MapSight unit, so you can go outside and start collecting data.

Capture Data

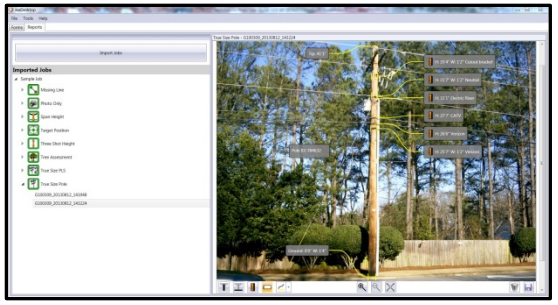
- Measure things in the field

Download

- Use MapSight View to move files from the MapSight to PC

View Report Data

Create & view report data in MapSight View



Measure photos in MapSight View

- Measure pole attachments from a GE MapSight photo
- Regenerate reports to review your results

System Setup

IMPORTANT: The following software is required to use your MapSight. They are available as downloads from www.gemapsight.com/support

MapSight Software

- **MapSight View**– MapSight View makes file transfer from your MapSight device simple. Customise and deploy forms directly to your MapSight unit and generate various file types from captured data. Make accurate pole measurements from photos and save marked-up photos.

- **MapSight User Guide** – the most comprehensive A-Z guide to using your MapSight device.

- **MapSight Fieldcraft Guide** - How to get the best results from your MapSight, tips and tricks to improve performance, accuracy, and productivity

Additional software

- Microsoft **ActiveSync** or **Mobile Device Center**- Programs necessary for connection to the PC. Some systems will already have these preloaded. If not, you will need to install one (ActiveSync for XP or Windows Mobile Device Center for Windows 8, 7 or Vista).

- **Google Earth** - View your data and measurements by clicking on their location on aerial photographs

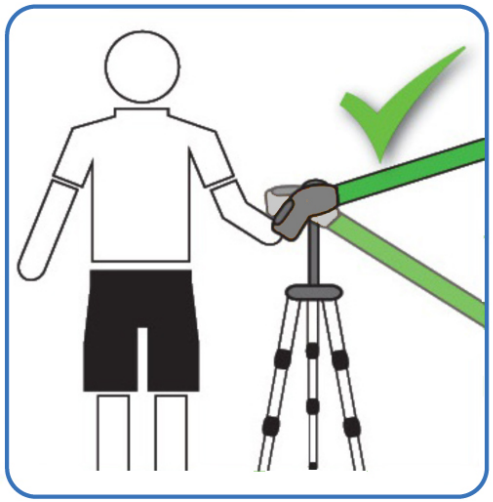
- **MapSightOS** – The Operating System for your MapSight. Your unit has been shipped with the latest factory software - your installed version shows on the MapSight unit main screen. However the team at MapSight are regularly making product improvements. To get the latest software releases with new tools, features and enhancements, regularly visit the www.gemapsight.com/support page.

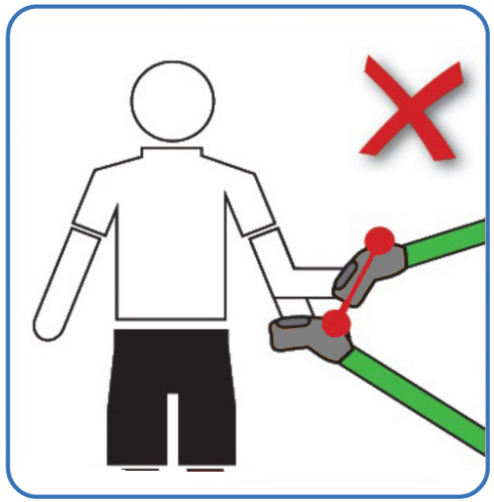
MapSight Tripod

We strongly recommend using a MapSight Low Magnetic Signature Tripod, which provides a stable platform, so you can obtain the most accurate results.

- Additional stabilization makes it much easier to target poles and wires.
- Minimise movement, ensure accurate measurements.
- The MapSight low magnetic signature tripod has no effect on the MapSight compass.

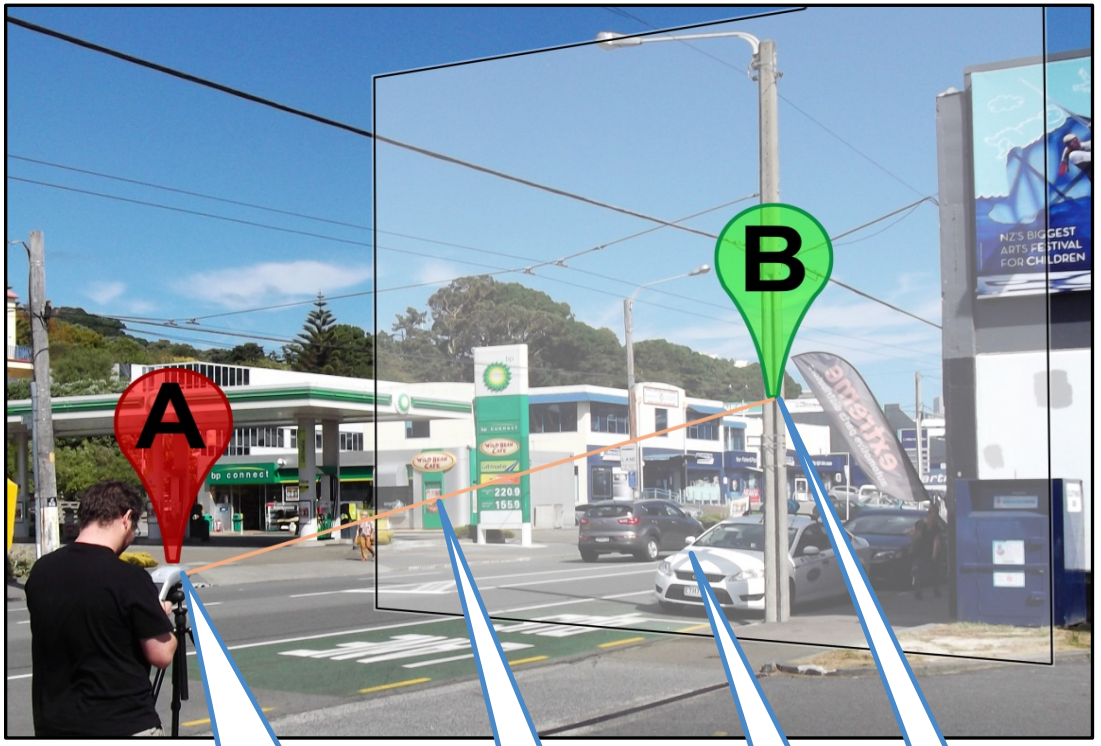
Tip: To ensure accuracy we recommend that you perform a compass calibration after air travel with your GE MapSight or before starting intensive measuring work.

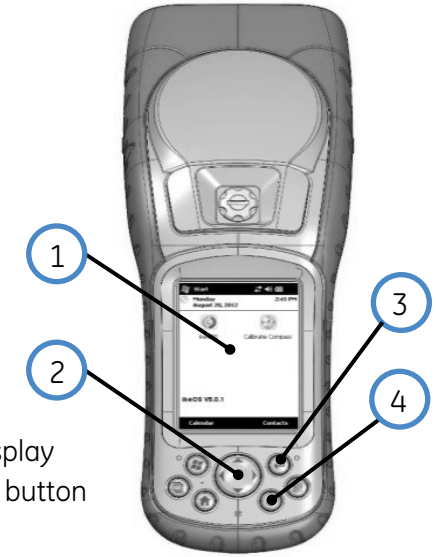




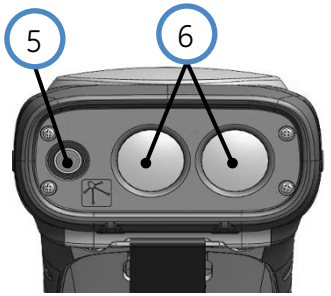
IMPORTANT: A normal tripod may introduce errors in target position and measurements due to potential magnetic interference with the in-built GE MapSight compass.

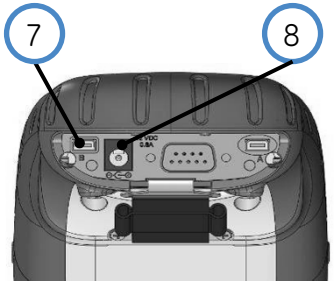
MapSight – How It Works



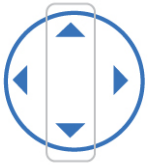


1. Touchscreen/LCD display
2. Four-way directional button
3. Enter button
4. Power button
5. Digital Camera
6. Laser Rangefinder
7. USB data transfer port
8. Power port

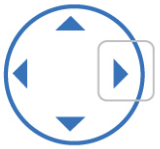




Navigating on MapSight



Move up or down through lists



Select item in list

Sample Forms

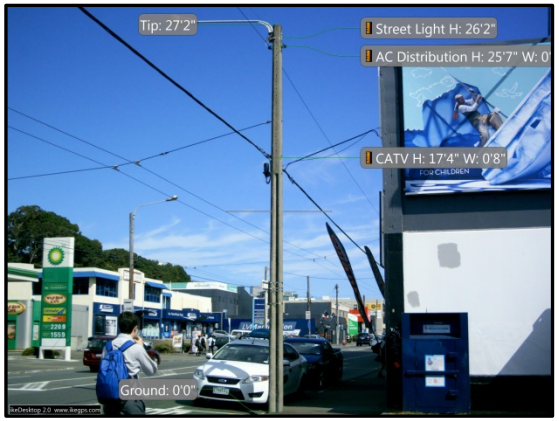
GE MapSight View comes with a number of **Sample Forms** to get you up and running quickly and learn the basics of the system.

Some of these sample forms are used in this training document for as examples for the below scenarios.

Use GE MapSight View to deploy these forms to your GE MapSight unit and get used to the GE MapSight workflow and then build your own forms.

Pole Audit

Pole ID Label
Attachment Height Pic
Add a Comment

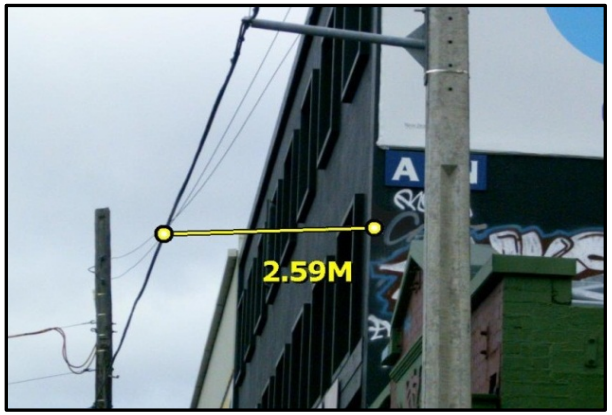


Wire Span

Span Height
Add Attributes : Driveway, Road, pavement

Wire Clearance

Wire Clearance Measurement
Add class: Wire-Vegetation,
Wire-Building, or
Wire-wire



Field Tips

- Charge before use
- Practice on close by poles before venturing too far
- Use a GE MapSight low magnetic signature tripod

For further tips see the **GE MapSight Fieldcraft guide**

Capture Data

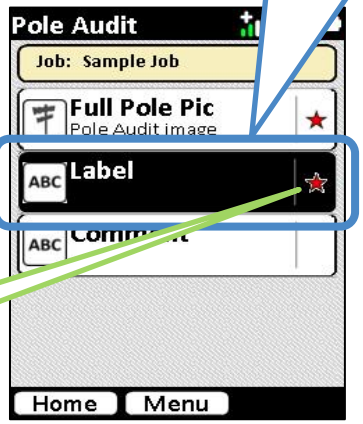
Sample Form – Pole Audit

Enter Pole ID Label
Full Pole photo
Enter a Comment

Tip: Rename the job in GE MapSight by selecting the 'Job' box and entering in a job name
*For this task, rename it '**Sample Job**'*

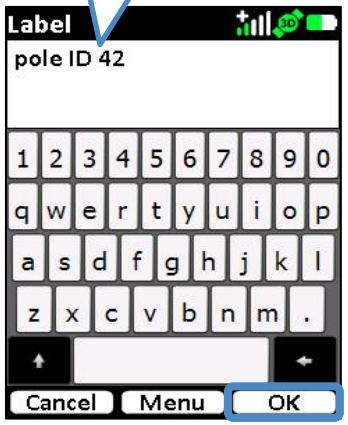
1. Open the 'Pole Audit' form

2. Select the 'Label' Task

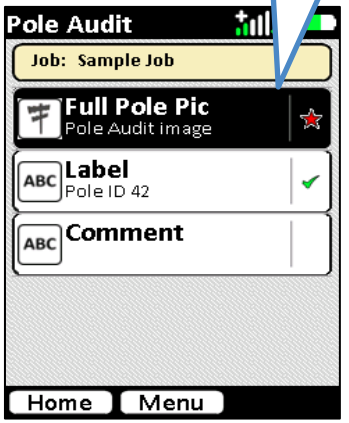


Tip: Tasks can be completed in any order. Mandatory tasks are shown with a Star

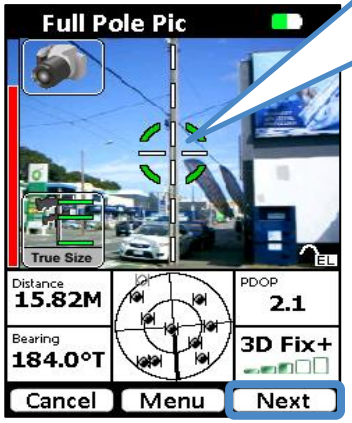
3. Type in the pole ID number and tap OK



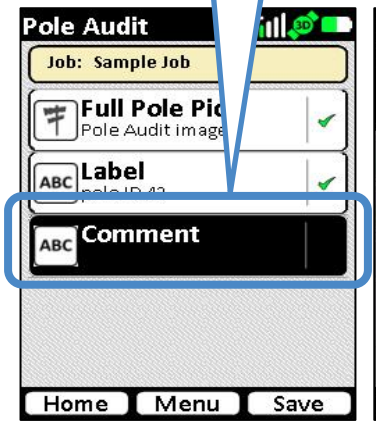
4. Tap 'Full Pole Pic'



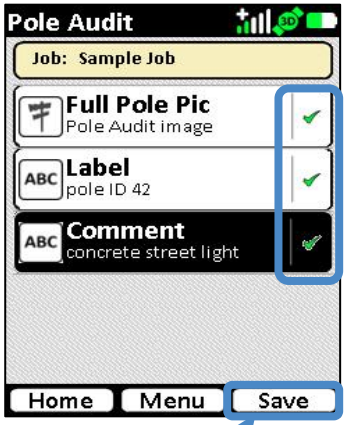
5. Aim at the pole, ensure:
   - The crosshairs hit the pole
   - The vertical guide is aligned
   - The entire pole is visible in the photo.
6. Tap 'Next' to capture



7. Tap 'Comment'



8. Add any relevant comments, e.g. Pole material, type etc. tap 'OK'



9. Now all tasks have been completed, tap 'Save'

Capture Data

Sample Form – Wire Span

Wire span height

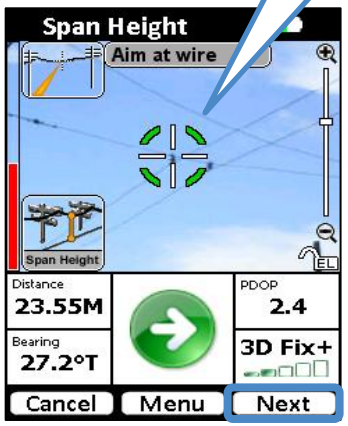
Add a Class: Driveway, Road, pavement

1. Open the 'Wire Span' form

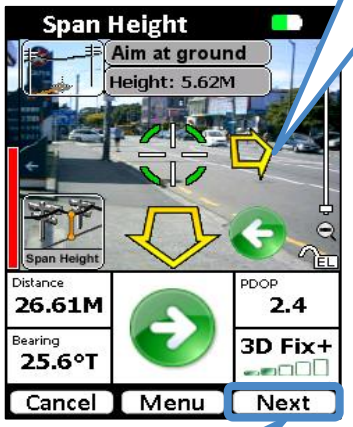
Tip: Rename the job on your GE MapSight by selecting the 'Job' box and entering in a job name.

2. Select the 'Span Height' task

3. Aim the GE MapSight at a wire, wait for the crosshair guide to turn green and tap 'Next'

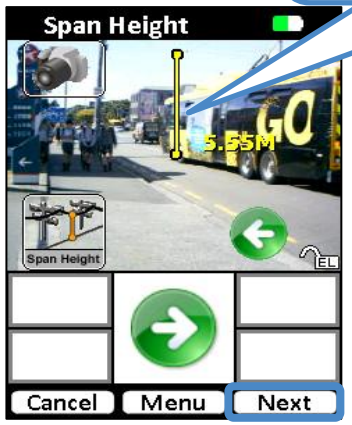


4. Follow the onscreen arrows to find the base point directly below the targeted wire point

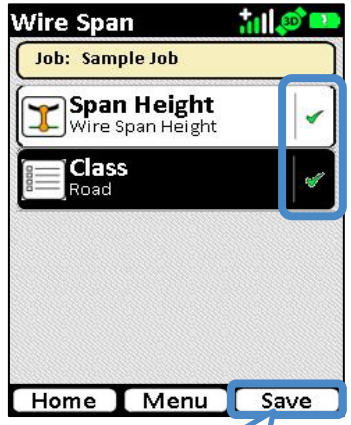


5. Once arrows disappear, tap 'Next' to capture the ground point

6. Aim the camera so that it captures the entire overlaid measurement and tap ‘Next’ to capture the photo



7. Select ‘Class’, and choose from Pavement, Road, Pavement, or Other and tap ‘OK’



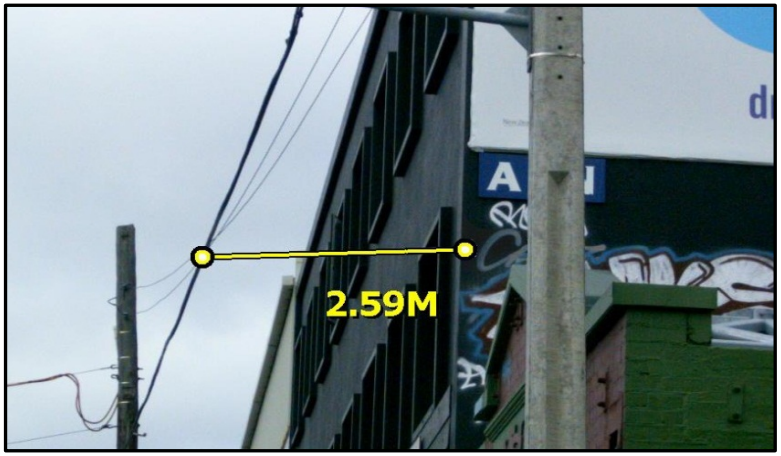
8. Now all tasks have been completed, ‘Save’ the job

Capture Data

Sample Form - Wire Clearance

Wire Clearance Measurement

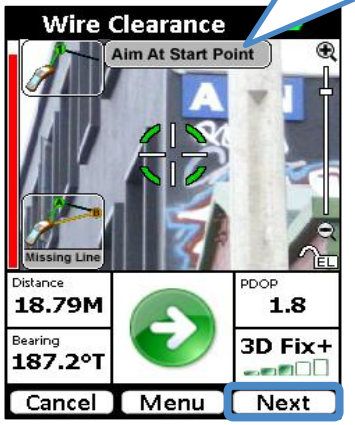
Add a Class: Wire-Building, Wire-Vegetation, Wire-wire



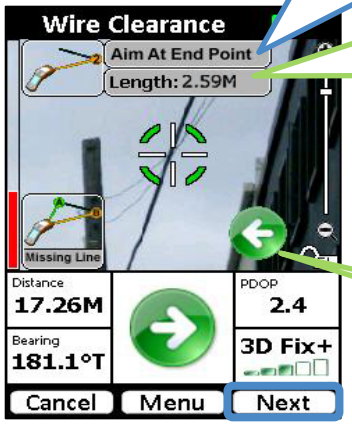
1. Select the 'Wire Clearance' form

2. Select the 'Wire Clearance' Task

3. Set the start point by aiming at a point on a building, tap 'Next'



4. Aim at the desired end point on the wire, tap 'Next'

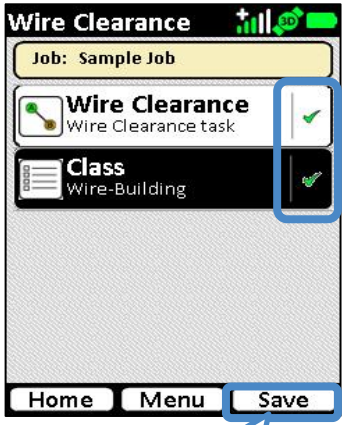


Tip: To find the minimum distance, observe the 'Length' readout while moving the laser along the wire

Tip: Use the green 'back' arrow if you want to go back a step

5. Aim the camera so that it captures the entire overlaid measurement and tap 'Next' to capture the photo

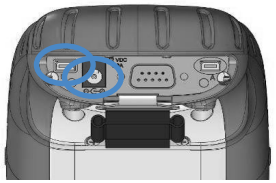
6. Select 'Class', and choose from the available wire clearance options and tap 'OK'



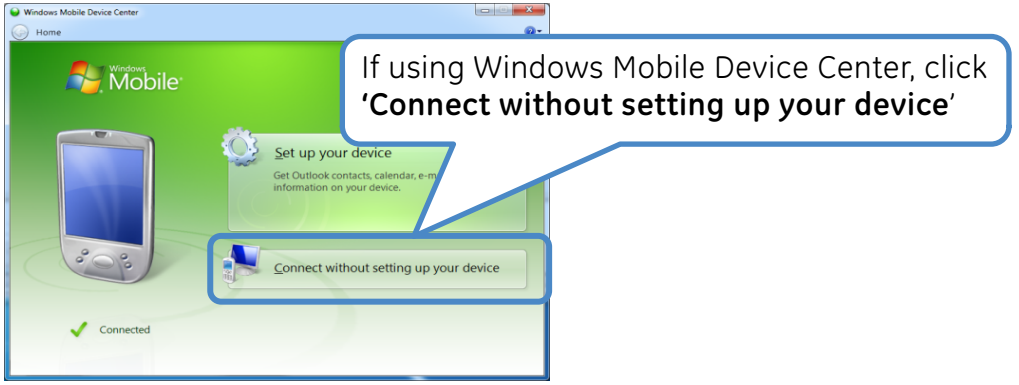
7. Now all tasks have been completed 'Save' the job

Download - Move files from the GE MapSight to PC

1. Plug in the USB & power cables

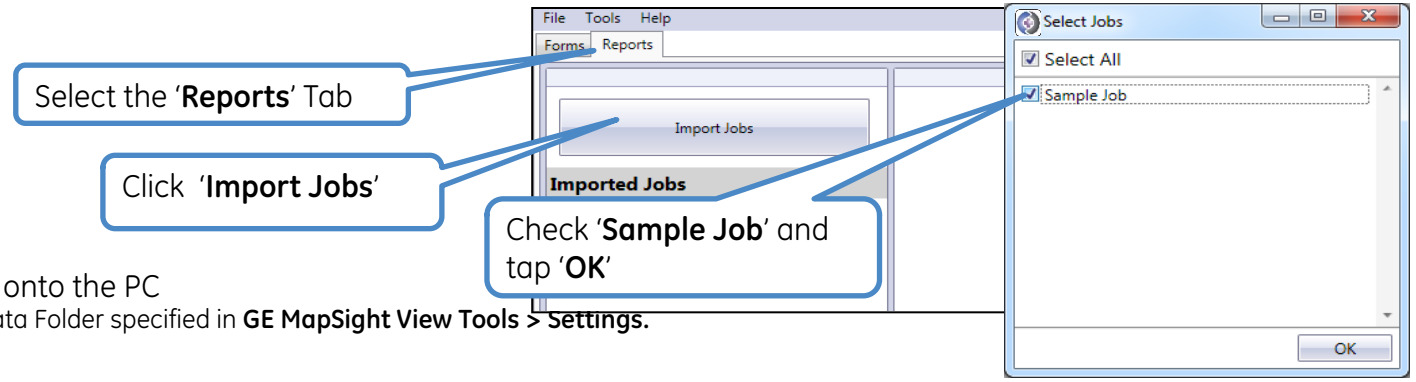


2. Wait for Windows to discover the GE MapSight*


Windows Mobile Device Center
Home
Windows Mobile
Set up your device
Get Outlook contacts, calendar, e-mail information on your device.
Connect without setting up your device
Connected
If using Windows Mobile Device Center, click 'Connect without setting up your device'

3. Start GE MapSight View

4. Import the Data from your GE MapSight



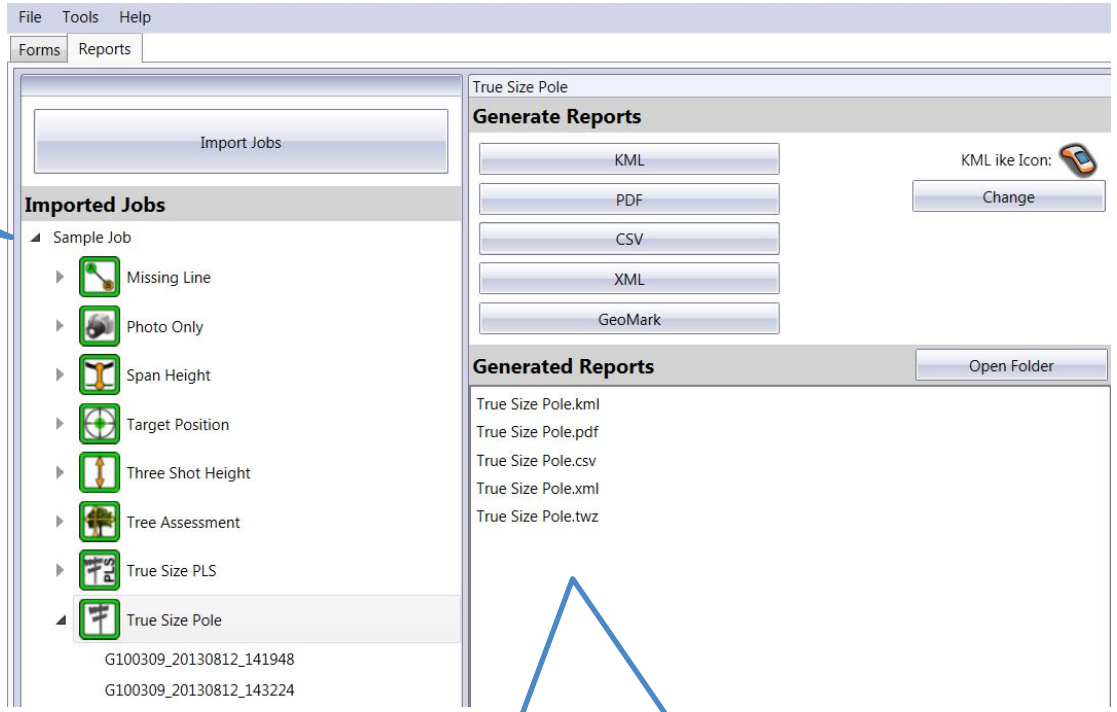
5. Data will be copied onto the PC

The data is copied to the Data Folder specified in **GE MapSight View Tools > Settings.**

***** Windows should automatically find the GE MapSight on plugging in the USB cable, however if your PC fails to find the device it may be necessary to download additional Microsoft Windows connection software, either **Windows Mobile Device Center** or **Windows ActiveSync**. See www.gemapsight.com/support.

Generate Reports in GE MapSight View

1. Locate your job in the 'Imported Jobs' panel



2. Select your desired file format and click on the desired report

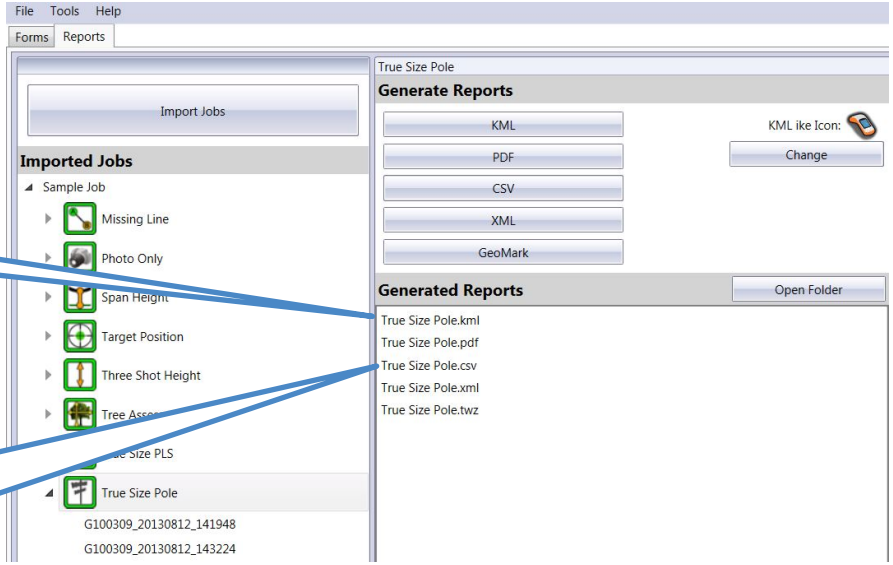
GE MapSight View automatically:

- generates the folder structure for the current job within the GE MapSight View Data folder
- creates **Generated Reports** based on the configuration settings - **Tools > Settings > Reports** or manually using the **Generate Reports** buttons

Viewing Report Data

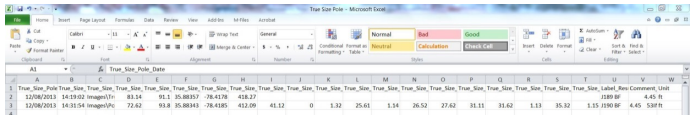
KML - Google Earth

In the GE MapSight View Reports tab double click on the **.kml** file



CSV – Spreadsheet (or database import)

Double-click the **.csv** file to view as a spreadsheet



By clicking on the Pole icon in Google Earth you can view the associated JPG photo along with other captured data

Note: *To include pole attachment data, simply regenerate the reports after performing your measurements*

Viewing Report Data

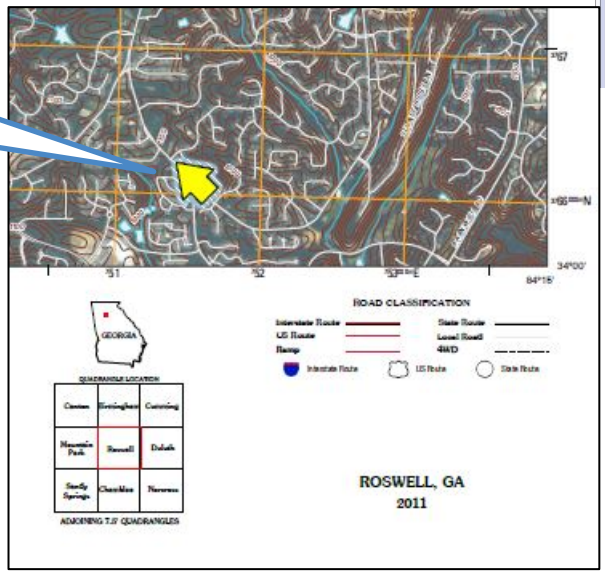
PDF - **Adobe**

TWZ - **GeoPDF**

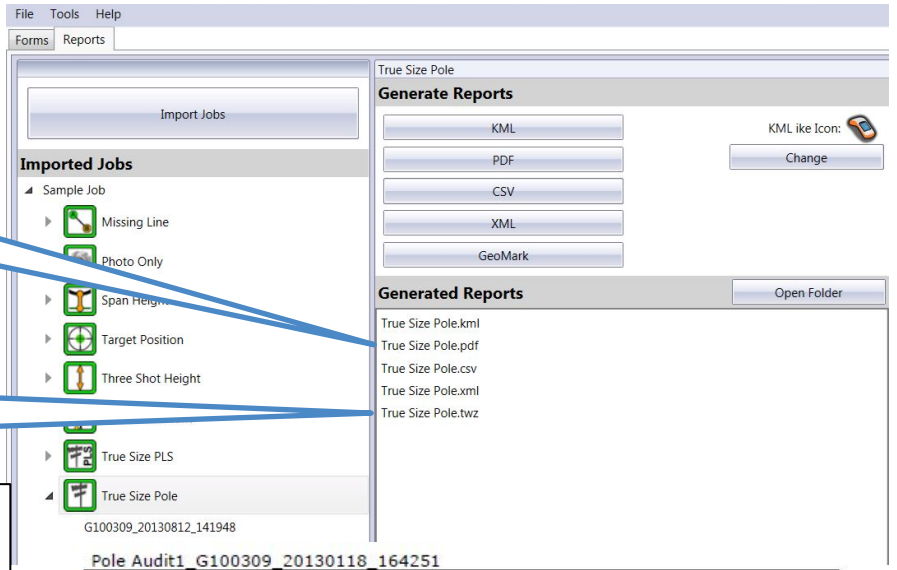
In the GE MapSight View Reports tab double click on the **.pdf** file

Double click the **.twz** file to create a GeoMark for viewing in a GeoPDF

By clicking on the arrow in the GeoPDF you can view the associated JPG photo



Tip: 41'1"
H: 35'4" W: 1'2" Cutout bracket
H: 31'7" W: 1'2" Neutral
H: 31'1" Electric Riser
H: 27'7" CATV
H: 26'6" Verizon
H: 25'7" W: 1'2" Verizon
Ground: 0'0" W: 1'4"



Pole Audit1_G100309_20130118_164251

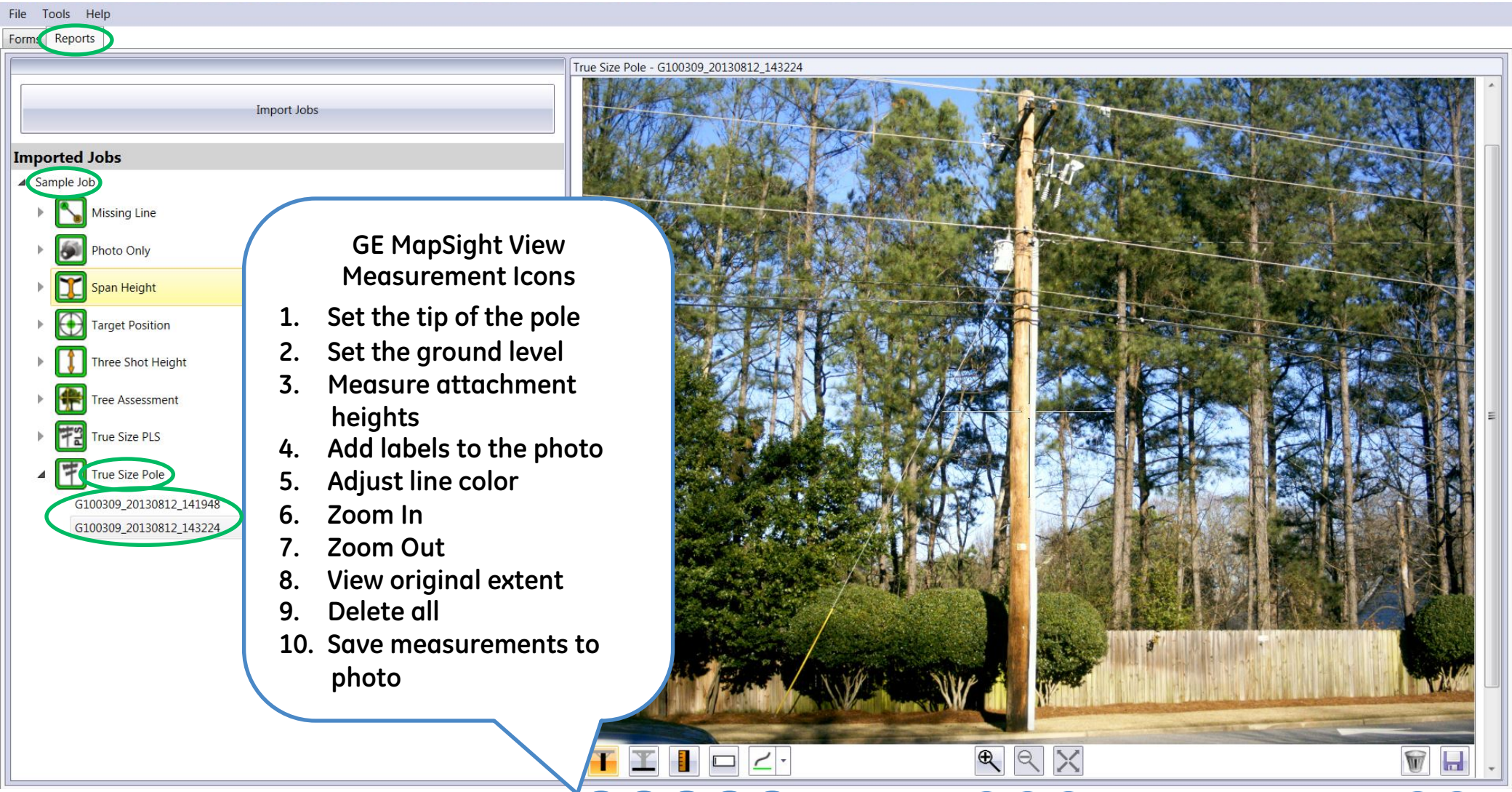
TruSize WholePole	
Date	2013-01-18
Time	16:02:34
ImageFilename	TruSize WholePole_G100309_20130118_160234_polestack.jpg
Distance	80'7"
TrueBearing	62.6°
TargetLatitude	34.006467035°
TargetLongitude	-84.277752317°
TargetAltitude	1107'0"

Note: *To include pole attachment data, simply regenerate the reports after performing your measurements*

Introduction to Measuring in GE MapSight View

- The GE MapSight View software enables you to effectively measure the heights and widths of pole attachments from your GE MapSight photos
- Use the TrueSize photo included in your sample data to measure pole attachments
- Open GE MapSight View and click on Reports -> Sample Job -> TrueSize Pole and click on a photo

Measure Photos in GE MapSight View

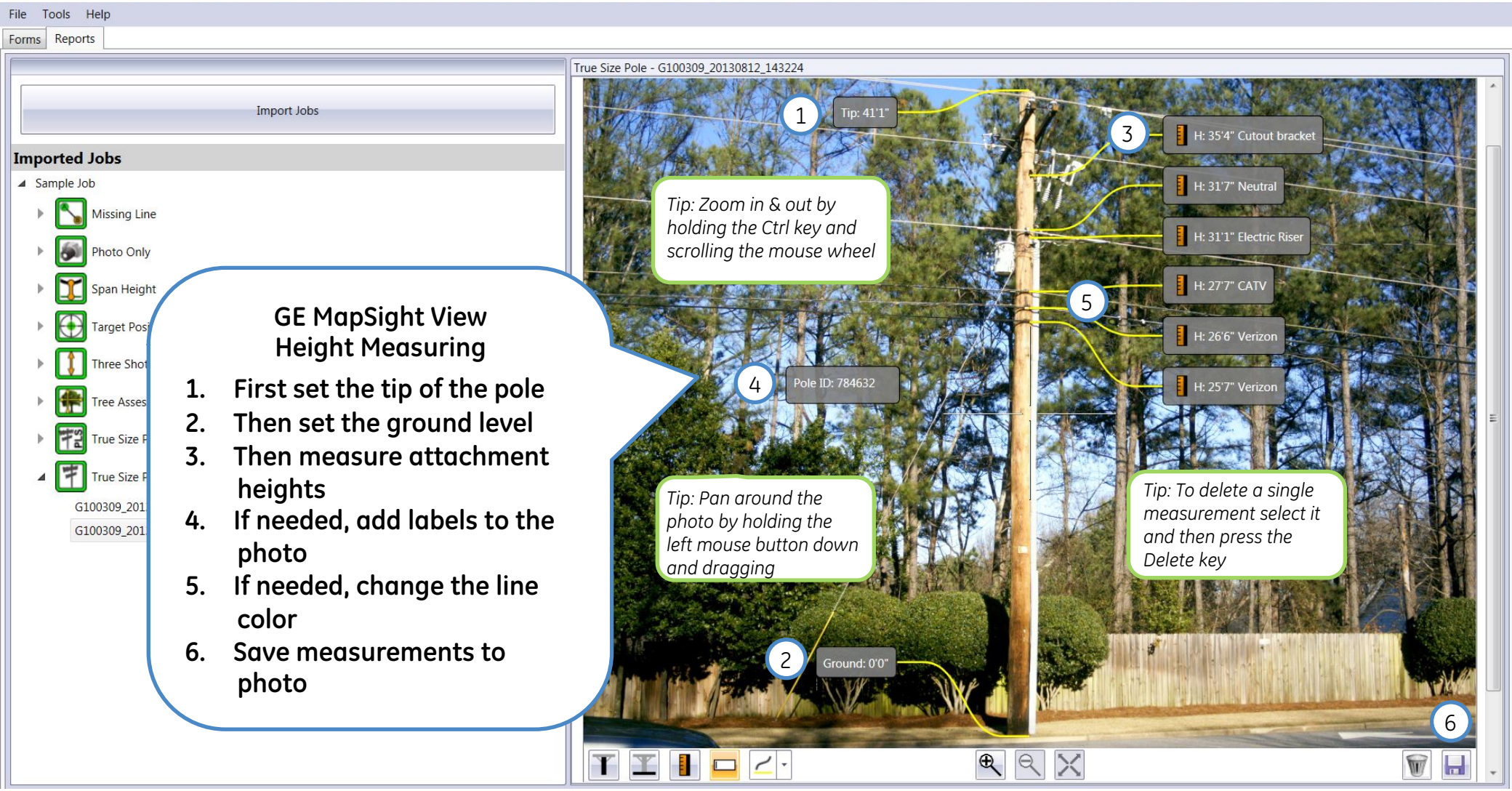


GE MapSight View Measurement Icons

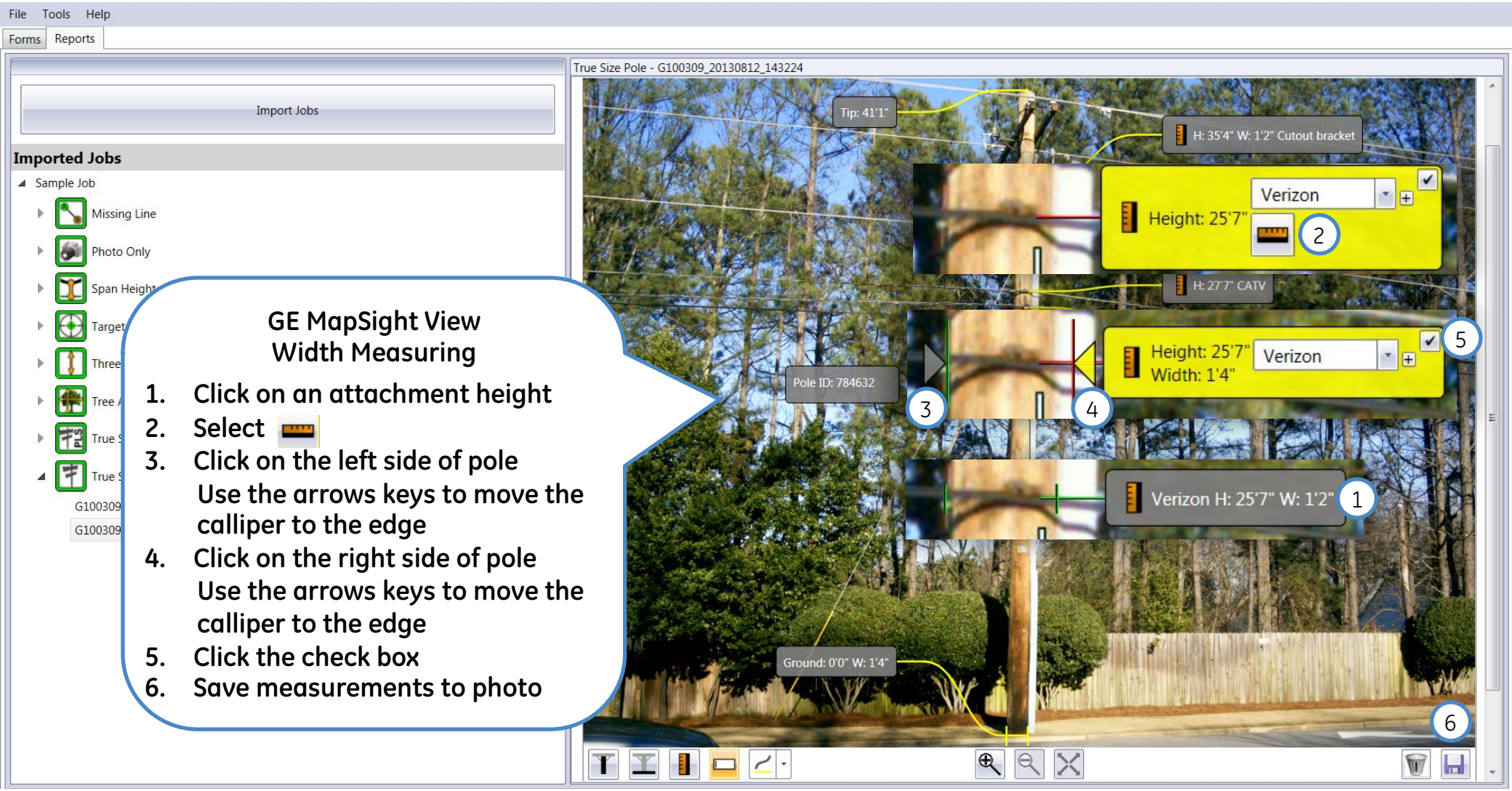
1. Set the tip of the pole
2. Set the ground level
3. Measure attachment heights
4. Add labels to the photo
5. Adjust line color
6. Zoom In
7. Zoom Out
8. View original extent
9. Delete all
10. Save measurements to photo

1 2 3 4 5 6 7 8 9 10

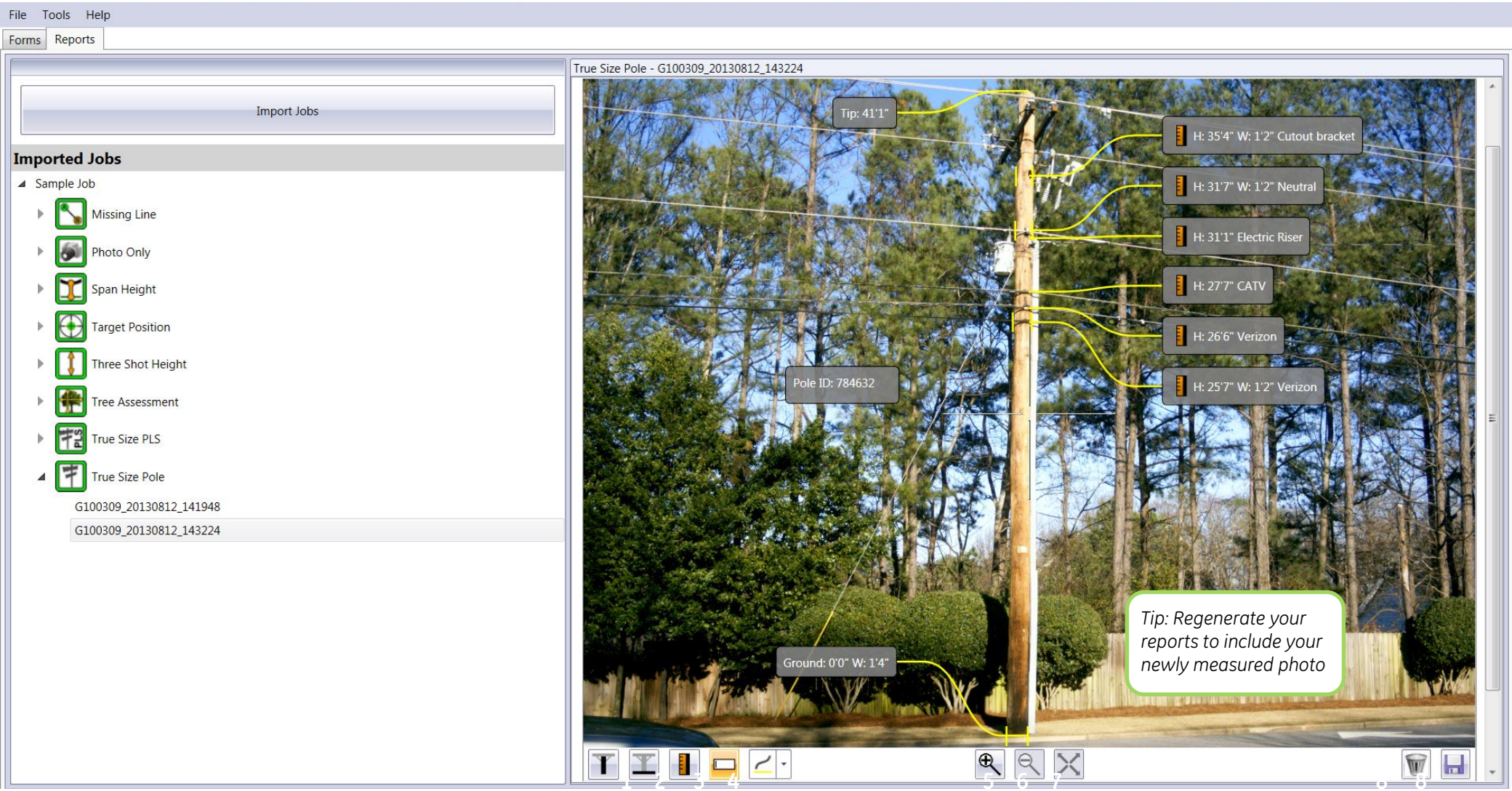
Measure attachment heights in GE MapSight View



Measure attachment widths in GE MapSight View

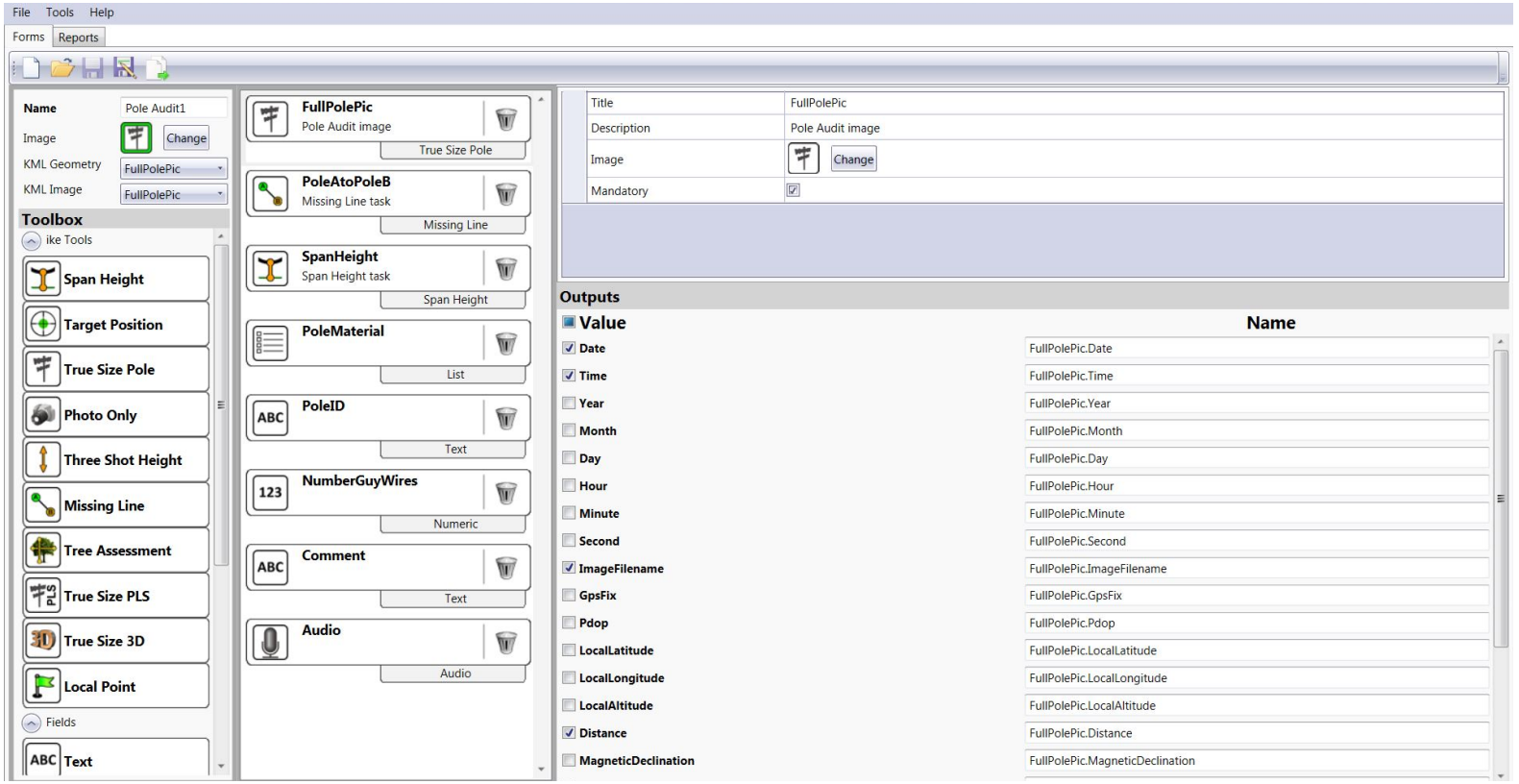


Measuring in GE MapSight View – completed



Custom Forms

By customising your workflow using GE MapSight View, speed up and get the best results for your application. For information on how to create custom forms refer to the **GE MapSight View User Manual**.



If you have any difficulties using GE MapSight software or need further information please go to www.gemapsight.com/support for assistance.

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